IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No.: FINKLER-2

In re Application of: ROLAND FINKLER & HANS-GEORG KÖPKEN Appl. No.: 10/598,618 Filing Date: September 6, 2006 For: METHOD AND APPARATUS FOR DETERMINATION OF THE ROTOR POSITION OF AN ELECTRIC MOTOR	) Confirmation No.: 7930

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATION OF EFS-WEB TRANSMISSION

I hereby certify that this paper is being EFS-Web transmitted to the U.S. Patent and Trademark Office, Alexandria VA 22313-1450, on April 2, 2007.
Date

Henry M. Feiereisen
(Name of Registered Representative)

(Signature)

4-2-2007
(Date of Signature)

S I R:

In accordance with 37 C.F.R. 1.56, applicant wishes to call the attention of the Examiner to the references listed on enclosed form PTO-1449 which were cited in the International Search Report issued by the European Patent Office with regard to the corresponding International patent application No. PCT/EP2005/051017 and in a German Office Action issued by the German Patent Office with regard to the corresponding German patent application No. 10 200446 612.9 and in the instant specification, respectively.

Applicant does not admit that any of the cited documents constitutes prior art against the pending application.

Copies of these references are submitted herewith along with form PTO-1449. **Please note that the publication date of all references is listed as "DD-MM-YYYY".** The Examiner is requested to initial the attached form PTO-1449 and to return a copy of the initialed document to the undersigned as an indication that the attached references have been considered and made of record.

This Information Disclosure Statement is filed before the mailing of a first Office Action on the merits, so that no fee under 37 C.F.R. §1.97 is due.

In order to satisfy the requirement under 37 C.F.R. §1.98(a)(3) for a concise explanation of the relevance of each item of information, applicant herewith submits a copy of the International Search Report. In addition, applicant notes with respect to any information that is not in English language as follows:

German Offenlegungsschrift No. DE 44 07 390 A1 describes a start-up and commutation procedure applies to synchronous machines having a rotor with fixed magnetization, a stator with a three-phase winding and an incremental transducer with a reference pulse signal. When the machine is switched on, currents with differing phases are applied to the stator three-phase winding in order to determine the maximum torque, and thus the stator current phase when the machine first turns. Up to recognition of the reference pulse signal, the stator current phase is given by determination of the relative position of the rotor to the stator. Following the reference pulse signal, the absolute rotor position is determined, and the preset rotor magnetizing direction offset angle is used to define the circulating phase of the stator currents.

European Patent Application No. EP 0 784 378 A2 describes a rotor position detection system for providing the absolute rotor position from the estimated angular position of the rotor, with the corresponding torque component set to zero and the flux component set to a value above zero, so that the rotor is displaced into the estimated position upon a disparity between the estimated position and the actual position. The rotation rate for the latter movement of the rotor is evaluated, to provide a regulation value for providing a correction angle,

allowing the estimated rotor angular position to be corrected to provide the actual angular position.

German Patent No. DE 196 04 701 C1 describes a servo device which includes an electric synchronous motor (1) of linear or rotary design with a mobile runner and fixed stator, either the runner or stator being provided with three-phase rotary current windings and the component without the windings having an exciter field; and an electronic control unit (2) which supplies three-phase electric currents for the three-phase rotary current windings to produce a periodic electromagnetic travelling or rotating field of predeterminable strength and frequency. When the motor is started, the phase of the travelling or rotating field can be matched smoothly to that of the exciter field as a result of the following: a force or torque sensor (9) connected to the electronic control unit is provided for measuring the forces or torques on the runner; and the electronic control unit (2) for matching the phase of the travelling or rotating field to that of the exciter field is provided with a control circuit which, when forces or torques are detected on the runner, shifts the field vector of the travelling or rotating field towards a phase angle relative to the exciter field at which the force or torque in question disappears.

German Offenlegungsschrift No. DE 44 39 233 A1 describes a sensor system for determining at least one of the three parameters of angular acceleration, angular velocity or angular position of a rotating component (17). Two primary detectors (initial elements, transducers) (18) which are to be connected to the component (17) are provided, which are connected to one another in a rotationally fixed fashion and are constructed as a mechanical unit. The primary detectors (18) are assigned signal-detecting systems (19, 20, 22) which supply the measured quantities (measured variables) for the angular acceleration and the angular position. With the aid of a first integration stage (2) and a second integration stage (3) following the latter, the values for at least the angular velocity are simulated by an evaluation circuit for the measured quantities (measured variables) which has a section simulator (simulating network) (1).

German Offenlegungsschrift No. DE 100 24 394 A1 describes a method which involves detecting (3) an element acceleration (a), integrating it to determine a model speed (vM), detecting an element position, differentiating it to derive measurement speed (v1), using the model speed to determine an actual speed (v), subtracting the model and measurements speeds, feeding the result to a regulator with an integral component, especially a PI regulator (13), summing the output signal with the acceleration value.

The above-identified application discloses and claims an invention patentable over this prior art.

Entry of the references above set forth into the file of the above application is believed to be in order and is respectfully requested.

Respectfully submitted

By: _____
Henry M. Feiereisen
Agent for Applicant
Reg. No. 31,084

Date: April 2, 2007
350 Fifth Avenue
Suite 4714
New York, N.Y. 10118
(212) 244-5500
HMF:be

PTO/SB/08a (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	PCT/EP2005/051017
Filing Date	07.03.2005
First Named Inventor	Dr. Roland Finkler
Art Unit	
Examiner Name	
Attorney Docket Number	FINKLER-2

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No.[1]	Document Number: Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-4 617 499 A	14.10.1986	Sony Corporation	
	2	US-4 703 235 A	27.10.1987	United Technologies Corporation	
	3	US-2003/0227286 A	11.11.2003	Dunisch et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	4	WO 2003/052919 A (US 6 885 163 B2)	26.06.2003	Robert Bosch GmbH		
	5	DE 44 37 793 A1 (US 5 874 821 A)	15.05.1996	Aktiengesellschaft für Industrielle Elektronik AGIE		
	6	DE 101 56 782 C1 (US 6 885187 B2)	17.04.2003	Siemens AG		
	7	DE 44 07 390 A1	14.09.1995	Grundig AG		
	8	EP 0 784 378 A2	16.07.1997	Siemens AG		
	9	DE 196 04 701 C1	12.06.1997	Sieb & Meyer Elektronik GmbH		
	10	DE 44 39 233 A1	6.7.95	Boehringer et.al		
	11	DE 100 24 394 A1	22.11.2001	Künzel et al.		

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IDNR: 4285 / 02.02.2006

PTO/SB/08b(05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

	Complete if Known
Application Number	PCT/EP2005/051017
Filing Date	07.03.2005
First Named Inventor	Dr. Roland Finkler
Group Art Unit	
Examiner Name	
Attorney Docket Number	FINKLER-2

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
	10	S. Refaat et al: "Controlling the Relative Orientation between the Two Magnetic Fields of a Synchronous Motor" in Systems, Man and Cybernetics, 2001 IEEE International Conference on, 7.-10. October 2001, S. 3169-3174, Band 5	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.